Social networking sites: barriers and facilitators to access for people with aphasia

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Background: The use of social networking sites (SNS) such as Facebook and Twitter may help to ameliorate the social isolation prevalent amongst individuals with aphasia (Northcott et al., 2016). For therapists, SNS offer contemporary platforms for communication activities, which encourage generalisation of skills and social uses of language. While some research has explored online, social network content created by people with aphasia (PWA) (Baier et al., 2017), no work to date has directly explored the accessibility of SNS for this group.

Aims: The reported project aims to reveal barriers and facilitators to the use of SNS by PWA through the use of structured usability testing and interviews. We hope that findings will broaden access to such ubiquitous communication opportunities.

Methods & Procedures:

Study 1. Four participants (one female) with mild to moderate aphasia (Western Aphasia Battery Aphasia Quotients 72–95) took part in individual usability testing sessions. These used well-established usability assessment techniques (Rogers et al., 2015), adapted for PWA. Testing sessions were facilitated by a speech and language therapist (SLT) researcher and moderated by a user experience researcher specialising in digital accessibility. Four of the most commonly used social media apps available on iPad (Facebook, Twitter, Tumblr, and Pinterest) were explored for issues of accessibility, examining common digital interaction tasks of varying complexity. Tasks included opening an app and browsing the "home news feed", writing a post, and adding a picture. Video and audio data from sessions were transcribed and analysed to identify common accessibility issues. **Study 2.** Four female UK SLTs were interviewed. Interviewees had 12 to 20+ years of clinical experience of using technology with PWA and worked across a variety of settings (research (n = 1), private practice (n = 1), and National Health Service (NHS) (n = 2)). Interviews invited participants to predict how two identified PWA on their caseload might respond to the same set of tasks explored in study 1. Thematic analysis of transcribed data was conducted to reveal barriers and facilitators.

Outcomes & Results:

Study 1. 18 barrier and 3 facilitator categories were identified. Participants experienced the greatest number of barriers for apps with which they had little or no previous experience. Several key barriers were experienced by all four participants and across all four apps. One arose where the apps used novel pictorial icons to access key functions (e.g., "write a tweet") in the absence of supporting textual prompts. Another arose where actions (e.g., delete) were concealed within a sequence of multiple button presses. Facilitators identified were: predictive search features, previous experience in using the SNS, and the ability to navigate to a destination using non-typical routes (e.g., finding their own profile page by typing their name into the search bar). **Study 2.** 30 barrier and 43 facilitator categories were identified. The most commonly reported barrier related to writing/typing difficulties, followed by "actions requiring multiple steps", "cognitive difficulties", and "the presence of distractions". The most commonly reported facilitator was "the presence of SLT assistance", followed by premorbid familiarity with technology", "family support", and the "requirement of only a limited number of steps".

Conclusions: Usability testing revealed several barriers to SNS access for participants with aphasia and a limited number of facilitators. Findings were echoed in data from SLT interviews, which also revealed additional proposed facilitators. Specific design features such as the absence of text from novel icons were identified in study 1. These might be addressed by designers of SNS tools. At a clinical level, study 2 indicates that the presence of SLT and family support to extend experience with SNS might offer additional access. Outcomes indicate the important role of designers and clinicians in facilitating future access to these increasingly ubiquitous technologies and modes of communication.

References

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